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Patent
PD-990309

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

John T. Austin

Serial No. 09/732,837 Group Art Unit: 2633

Filed: 12/07/2000 Examiner: Payne, David C.

For: HYBRID SATELLITE AND FIBER COMMUNICATION SYSTEM

CERTIFICATE OF MAILING (37 C.F.R. § 1.8(a))

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Date: June 13, 2005

Georgann S. Grunebach, Reg. No. 33,179
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Customer No. 020991

BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following Appeal Brief is submitted pursuant to the Notice of Appeal filed on April 14, 2005 for the above-identified application.

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I. Real Party in Interest

The real party in interest in this matter is The DIRECTV Group, Inc., of El Segundo, California which is 34 percent owned by Fox Entertainment Group, which is approximately 82 percent owned by The News Corporation, Limited.

II. Related Appeals and Interferences

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of the Claims

Claims 1-10 stand rejected in the Final Office Action.

IV. Status of Amendments Filed After Final

There have been no Amendments filed after the final rejection.

V. Summary of the Invention

Claim 1 is directed to a communications system 10 that is best shown in Figure 1. The communications system 10 includes a first teleport station 20 that is described in the second full paragraph of page 4. A first user terminal 16 is also included in Claim 1. The user terminal is set forth in the first full paragraph of page 4. As stated, the user terminals may include various consumer and business-type applications.

Claim 1 further includes a satellite 18 coupling the first teleport station 20 to the first user terminal 16. The satellite is first described in the first full paragraph of page 4.

A network access point 21 is coupled to the Internet and the first teleport station 20. The network access point 21 is coupled to the first teleport station through an optical fiber 23. The coupling of the teleport station and the network access point is described in paragraph 2 of page 4.

Claim 2 recites that the satellite comprises a satellite in the Ka band. This is described in the third paragraph of page 4.

Claim 3 recites a second teleport station coupled to the first teleport station through the satellite. This is shown generally in Figure 5. The description of Figure 5 is set forth in the first two paragraphs of page 7.

Claim 4 is a second independent claim directed to a satellite 18, a first teleport station 20, an optical fiber network 23, and a second teleport station 20 coupled to the first teleport station through the optical fiber network 23 and the satellite 18. Support for this can be found with respect to the description on page 7, paragraphs 2 and 3. The optical fiber network 23 provides a primary communication link until an irregularity is detected in the optical fiber, where, upon sensing of the irregularity, the communication is routed from the first teleport station to the second teleport station through the satellite. The detection and changing of the communications is set forth in the first full paragraph of page 7.

Claim 5 is an independent claim directed to a method of communicating between a first user terminal and a first geographic region served by a first satellite and a second user terminal in a second geographic region. Claim 5 recites the steps of directing a

communication from a first user terminal to the first satellite 18, routing the communication from the first satellite 18 to the first teleport station 20 and routing the communication from the first teleport station 20 to a second teleport station 20 in the second geographic region by way of an optical fiber network 38. Claim 5 also recites the step of routing the communication from the second teleport station 20 to a second user terminal in the second geographic region. This is generally set forth in the first full paragraph of page 7.

Claim 6 recites that the step of routing communication from the second teleport station comprises directing the communication from the second teleport station to the second user terminal by way of an optical fiber. This is also set forth in the first full paragraph of page 7.

Claim 7 depends from Claim 5 and recites that the second teleport station directs the communication from the second teleport station to the second user terminal by way of a second satellite. This is referred to as a double hop configuration and is set forth in Figure 6. The description of Figure 6 is set forth in the third full paragraph of page 7.

Claim 8 is dependent upon Claim 5 and recites coupling the first teleport station to the Internet.

Claim 9 is an independent claim and recites a method of operating a communications system. Claim 9 recites generating a plurality of spot beams directed to a respective plurality of teleport stations from a satellite. Spot beams are described in the paragraph bridging pages 6 and 7 with respect to Claim 4. Claim 9 further recites

interconnecting the plurality of teleport stations with an optical communication network. The optical communication network is an optical fiber set forth in Figure 6 as described above. In normal operating conditions, communications are directed from a first of the plurality of teleport stations through a satellite 18 to a first user terminal. When the second teleport station is encumbered the communication is directed through an optical link. This is described in the first full paragraph of page 7.

Claim 10 recites that the optical communication network is connected to the Internet 22. Claim 10 depends from Claim 9.

VI. Grounds of Rejection to be Reviewed on Appeal

Claims 1 and 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Adiwoso* (6,067,453).

Claim 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Adiwoso* in view of *Wiedeman* (6,160,994).

Claims 4-10 stand rejected under 35 USC § 103(a) as being unpatentable over *Adiwoso, et al.* (6,067,453) in view of *Acampora* (6,049,593).

VII. Argument

The Rejection of Claims 1 and 3 under 35 U.S.C. §103(a)

Claim 1

Claim 1 is directed to a communication system that has a first teleport station, a first user, and a satellite that couples the first teleport station to the first user. A network

access point is coupled to the Internet and the teleport station. The network access point is coupled to the teleport station through an optical fiber. On page 6 of the Final Office Action the Examiner states that the *Adiwoso* reference teaches an, "Internet access point coupled to the Internet (figure 1 (37)) and the first teleport station, said network access point coupled to the first teleport station through an optical fiber." The Examiner points to Col. 5, lines 1-5, for this teaching. Appellant disagrees with the Examiner's interpretation of this statement. The sentences the Examiner refers to begin on Col. 4, line 66 and states, "Additionally, gateway 30a may provide a high-speed, broadband connection that allows user terminals to access information available on the Internet. In the example of FIG. 1, this service is available via an Internet access point (IAP) 37 connection. Internet access point 37 may comprise a large fiber-optic cable ***link*** providing information access at an extremely high bandwidth (e.g., gigahertz)." (emphasis added). Appellant agrees that reference to a fiber-optic cable link is taught. Claim 1, however, recites that the network access point is coupled to the first teleport station through an optical fiber. The Internet access point 37 is referred to as a large fiber-optic cable link, but no teaching or suggestion is provided in *Adiwoso* for coupling the gateway 30 to the IAP 37 through an optical fiber. *Adiwoso* teaches a link to a fiber optic cable, but no teaching as to how the link if formed.

On page 6 of the Final Office Action, the Examiner states, "Furthermore, Adiwoso disclosed that the optical network which exists as part of the IAP (37) comprises an optical fiber. Since Figure 1, clearly shows that said IAP is connected to the satellite (30)

is obvious to one of ordinary skill in the art at the time of invention that these two point could be connected with same fiber as fiber is extremely well known to connect communication end-points for high-speed data delivery." Appellant respectfully submits that this is speculation by the Examiner since there is no teaching whatsoever as to the connection between the two points. Although a high speed, broadband connection is described as being provided by gateway 30a, only a link to a fiber optic cable is taught or suggested.

On Page 3 of the Final Office Action, "In this case, it is not necessary that Adiwoso explicitly disclose the satellite (30) connected to the IAP (37) with fiber given the preceding disclosure. The Examiner contends that it is clearly obvious to connect the two points with a fiber optic line given both what is extremely well known in the art and the explicit disclosure that the IAP comprises fiber optic connections and that the satellite comprises high-speed broadband connection (a.k.a. fiber). Then one of ordinary skill would connect two such high-speed connections together to form the connection as shown in Figure 1." Appellant admits that a fiber line exists as part of (37). However, no teaching or suggestion is provided for providing the fiber line to the connection of the two points. There are various methods for performing broadband coupling. Broadband may, for example, be performed using copper cable lines. Appellant, therefore, respectfully submits that the Examiner's conclusion is using mere speculation to glean the elements of the present claims from the *Adiwoso* reference.

Appellant, therefore, respectfully requests the Board to reverse the Examiner's position with respect to Claim 1.

Claim 3

Claim 3 recites a second teleport station coupled to the first teleport station through the satellite. The Examiner points to Figure 12 for the teaching of a second teleport station. However, Appellant has reviewed Figure 12, which shows two satellites in a single integrated gateway with two different antennas 307 and 317. Figure 12 also shows a control facility 500. This system is used to control a satellite that is for fixed services and a satellite that is for mobile services. However, the integrated gateway is used to control both. Therefore, no second teleport station is taught or suggested in Figure 12. Appellant therefore respectfully requests the Board to reverse the Examiner's position with respect to Claim 12.

The Rejection of Claim 2 under 35 U.S.C. §103(a)

Claim 2

Claim 2 should be allowable for the same reasons set forth above. That is, the *Adiwoso* reference fails to teach that a teleport station is coupled to a network access point through an optical fiber. The teaching of *Wiedeman* is set forth for disclosing the use of Ka band. However, the *Wiedeman* reference does not teach coupling a first teleport station to a network access point through an optical fiber. Appellant therefore respectfully requests the Board to reverse the Examiner's position with respect to Claim 2.

The Rejection of Claims 4-10 under 35 USC § 103(a)

Claim 4

With respect to Claim 4, a communication system is recited that includes a satellite, a first teleport station, an optical fiber network, and a second teleport station coupled to the first teleport station through the optical fiber network and the satellite. The optical fiber network provides a primary communication link until an irregularity is detected in the optical fiber, where, upon the sensing of the irregularity, the communication is routed from the first teleport station to the second teleport station through the satellite.

The Examiner admits that *Adiwoso* does not disclose the second teleport station coupled to the first teleport station through the optical fiber network and the satellite; an optical fiber network providing a primary communication link until an irregularity is detected in the fiber optic cable, whereupon the sensing of the irregularity, routing the communication from the first teleport station to the second teleport station through the said satellite. The Examiner cites the *Acampora* reference for this teaching. Appellant respectfully submits that the *Acampora* reference does not teach or suggest the use of satellites. The *Acampora* reference as set forth in column 1, lines 37-42, states, "In particular, the present invention will be seen to be concerned with how to connect the existing world communications 'backbone' which is, in America circa 1997, based primarily on wire and optical fiber lines, to the typical subscriber household and office – the so-called 'last mile' problem." The present application and Claim 4 is directed to an

entire system that uses satellites for communication therebetween. Last mile connection referred to in *Acampora* concerns coupling a network point to a user. Therefore, Appellant respectfully submits that the *Acampora* reference teaches away from such combination suggested by the Examiner since they are vastly different systems. Further, the *Acampora* reference does not teach substituting a satellite system for an optical fiber system. Appellant does admit that the system may use a wireless radio system, but this system is a terrestrial-based system. As pointed out by the Examiner, each link may be redundant and may be continually operated redundantly or the communication modes may be substituted for each other depending upon conditions such as atmospheric interference. The *Acampora* reference, however, as mentioned above, is a terrestrial-based system and does not teach or suggest the use of a satellite in place of an optical fiber. There is no motivation to modify *Acampora* in such a manner since it is dealing with only the last mile type of connection and not the overall system. Appellant, therefore, respectfully requests the Board to reverse the Examiner's rejection of Claim 4.

Claim 5

Claim 5 is directed to a method of communicating between a first user in a first geographic region served by first satellite and a second user in a second geographic region by directing communications from a first user to the first satellite, routing the communication from the first satellite to a first teleport station, routing the communication from the first teleport station to a second teleport station in a second geographic region by way of an optical fiber network, and routing the communication

from the second teleport station to a user in the second geographic region. The Examiner with respect to Claim 5 states, "Adiwoso disclosed operation over diverse geographic regions." Appellant respectfully submits that the steps described above with respect to Claim 5 are not taught or suggested in the *Adiwoso* or *Acampora* references. Although satellites and a single gateway station are illustrated, no teaching or suggestion is provided for routing the communication from the first teleport station to the second teleport station in the second geographic region by way of an optical fiber network. Appellant therefore respectfully requests the Board to reverse the Examiner's rejection of Claim 5.

Claims 6 and 7

Claims 6 and 7 are dependent upon Claim 5 and recite that routing the communication from the second teleport station to the user in the second geographic region is respectively performed using an optical fiber or a second satellite, respectively. As mentioned above, no second teleport station is set forth in *Adiwoso*. The *Wiedeman* reference also fails to teach or suggest such steps. Appellant therefore, respectfully requests the Board to reverse the Examiner's rejection of Claims 6 and 7.

Claim 8

Claim 8 is also dependent upon Claim 5 and provides further limitations thereto. Claim 8 stands or falls with Claim 5.

Claim 9

Claim 9 is also an independent claim directed to a method of operating a communication system. Claim 9 recites, "generating a plurality of spot beams directed to a respective plurality of teleport stations from a satellite, interconnecting the plurality of teleport stations with an optical communication network; in normal operating conditions, directing a communication from a first of said teleport stations through said satellite to a first user; and when the second teleport station is encumbered, directing the communications through an optical link." The Examiner points to Col. 8, lines 10-15. However, Appellant can find no suggestion in this passage for directing a communication from a first of said plurality of teleport stations through said satellite to a first user during normal operations and when the teleport station is encumbered, directing the communications through an optical link. Appellant respectfully requests the Board to reverse the Examiner's rejection with respect to this claim as well.

Claim 10

Further, Claim 10 is a further limitation of Claim 9 and should be allowable for the same reasons set forth above.

VIII. Appendix

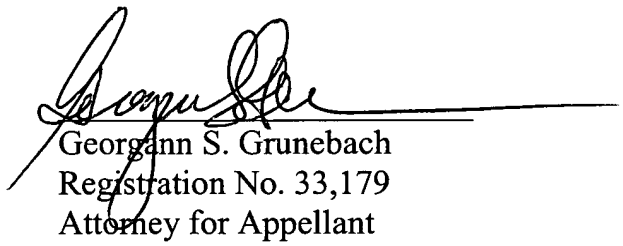
A copy of each of the claims involved in this appeal, namely Claims 1-10.

IX. Conclusion

For the foregoing reasons, Appellant respectfully requests that the Board direct the Examiner in charge of this examination to withdraw the rejections.

Please charge any fees required in the filing of this appeal to deposit account 50-0383.

Respectfully submitted,



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Attorney for Appellant

Date: June 13, 2005

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APPENDIX A

1. A communications system comprising:

a first teleport station;

a first user terminal;

a satellite coupling the first teleport station to the first user terminal; and

a network access point coupled to the Internet and the first teleport station, said network access point coupled to the first teleport station through an optical fiber.

2. A communications system as recited in claim 1, wherein said satellite comprises a satellite in the Ka band.

3. A communications system as recited in claim 1, further comprising a second teleport station coupled to the first teleport station through said satellite.

4. A communications system comprising:

a satellite;

a first teleport station;

an optical fiber network;

a second teleport station coupled to the first teleport station through said optical fiber network and said satellite;

said optical fiber network providing a primary communication link until an irregularity is detected in said optical fiber, where, upon the sensing of the irregularity, routing the communication from said first teleport station to said second teleport station through said satellite.

5. A method of communicating between a first user terminal and a first geographic region served by a first satellite and a second user terminal in a second geographic region comprises the steps of:

directing a communication from a first user terminal to the first satellite;

routing the communication from the first satellite to a first teleport station;

routing the communication from the first teleport station to a second teleport station in the second geographic region by way of an optical fiber network; and

routing the communication from the second teleport station to a second user terminal in the second geographic region.

6. A method as recited in claim 5, wherein the step of routing communication from the second teleport station comprises directing the communication from the second teleport station to the second user terminal by way of an optical fiber.

7. A method as recited in claim 5, wherein the step of routing communication from the second teleport station comprises directing the communication from the second teleport station to the second user terminal by way of a second satellite.

8. A method as recited in claim 5, further comprising the step of coupling the first teleport station to the Internet.

9. A method of operating a communications system comprising the steps of:

generating a plurality of spot beams directed to a respective plurality of teleport stations from a satellite;

interconnecting the plurality of teleport stations with an optical communication network;

in normal operating conditions, directing a communication from a first of said plurality of teleport stations through said satellite to a first user terminal; and

when the second teleport station is encumbered, directing the communication through an optical link.

10. A method as recited in claim 9, further comprising the step of connecting the optical communication network to the Internet.

CUSTOMER NO.: 020991

JC163
JUN 15 2005
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PATENT
Docket No. PD-990309

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: John T. Austin
Serial No.: 09/732,837
Filed: December 7, 2000
For: HYBRID SATELLITE AND FIBER COMMUNICATION SYSTEM

Date: June 13, 2005

Group Art Unit: 2633

Examiner: David C. Payne

APPEAL BRIEF
TRANSMITTAL LETTER

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Sir:

Enclosed is the Appeal Brief for the above-identified patent application.

____ Applicant petitions for an extension of time for _____ months(s). If an additional extension of time is required, please consider this a petition therefor.

Fee $_____

____ An extension for _____ months(s) has already been secured; the fee paid therefor of is deducted from the total fee due for the total months of extension now requested. $_____

Extension fee due with this request $_____

__X__ Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

__X__ The Appeal Brief Fee of $ 500.00 is due.

__X__ The total fee due is $500.00. Please charge this amount to Deposit Account No. 50-0383 of The DIRECTV Group, Inc. (formally Hughes Electronics Corporation), El Segundo, California. If any additional appeal brief fee or extension fee is required, please charge to Deposit Account No. 50-0383.

This letter is submitted in duplicate.

Respectfully submitted,

Georgann S. Grunebach, Registration No.: 33,179
Attorney for Appellant

CERTIFICATE OF MAILING UNDER 37 CFR 1.8

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June 13, 2005
(Date of Signature)

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